

Covanta Haverhill, Inc.

Material Separation Plan III for Mercury Containing Products
Revised: September 16, 2004

Purpose: Compliance with 310 CMR 7.08(2) Regulations Governing
Municipal Waste Combustors

Submitted to: Massachusetts Department of Environmental Protection
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Covanta would like to take this opportunity to publicly honor the memory of Mr. Stephen Parker, MSP program manager and more importantly our friend. Stephen was instrumental in getting this program up and running and its success was due to his commitment and hardwork. We will miss him dearly.

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I. Background and Purpose

In 1998, the Massachusetts Department of Environmental Protection's (MADEP or the Department) promulgated regulations 310 CMR 7.08 (2) governing municipal waste combustors (MWC's). Section 310 CMR 7.08(2)(f)(7) required MWC's to submit a material separation plan that describes actions the MWC will take for the removal of mercury-containing products from the waste stream. The plan must be developed in accordance with the MADEP's "Material Separation Plan Guidance Document".

Covanta Haverhill (formerly Ogden – Martin, Inc) developed their first Material Separation Plan for the removal of mercury and mercury containing products and submitted the proposed Plan on October 31, 2000. MADEP reviewed the Plan and issued final approval on February 2, 2001.

On April 24, 2001, Covanta Haverhill submitted a request for a modification to the MSP. Final approval of the modification request was granted on July 23, 2001.

In a letter dated September 21, 2001, MA DEP notified Covanta that the DEP was extending various dates related to the MSP in order to provide sufficient opportunity to implement the MSP and to allow for the results of the activities conducted in the first MSP to be utilized in developing the second MSP. The letter also noted that as a consequence of the various dates related to the MSP being changed, it would be necessary for Covanta to modify their MSP (extend it for six months) in order for the facility to meet and comply with Department's new MSP schedule.

Consequently, on November 26, 2001, Covanta requested a modification to the MSP that extended the period during which the facility would implement its first MSP to June 30, 2002. Covanta received approval of the Application for Modification on January 16, 2002.

Covanta Haverhill submitted a draft of the second Material Separation Plan (MSP II) to MA DEP on April 1, 2002 and then a revised draft of MSP II on May 16, 2002. Covanta Haverhill received final approval of the MSP II from the MA DEP on July 3, 2002.

The following proposed third Material Separation Plan (MSP III) is also based on MADEP's "Material Separation Plan Guidance for Municipal Waste Combustors".

Pursuant to discussions with the Department, the MSP timelines are again being revised to provide sufficient opportunity for review of annual reports, development of future MSP plans, review by the Department, and the finalization of the plan. In accordance with those new timelines, MSP III covers the 2 ½ year planning and implementation period from July 1, 2004 through December 31, 2006.

II. Overview of the MSP III

A. Goals

The overall goals of the MSP III continue to be:

- Comply with applicable Massachusetts regulations
- Implement an program that builds on existing programs, to the extent practicable
- Coordinate with other MSP programs being implemented to minimize redundancy and make the best use of the resources being spent on this mercury diversion effort
- Expand public awareness about mercury
- Divert mercury products from the solid waste stream
- Reduce the use of mercury-containing products
- Increase participation in mercury recycling/reduction programs

Please note that the MSP is only a planning document. Statements regarding projected diversions of mercury containing waste, budget categories and the like are provided in response to MDEP requests for estimates of anticipated program results. They are not intended to serve as enforceable commitments.

As recognized in the MADEP Guidance document, Covanta and other waste combustors do not have extensive experience in changing people's behaviors and encouraging participation in material separation plans. It is still very early in a long-term process designed to change behavior – buying and disposal habits. In a large part, because of the difficulty in measuring behavioral change, it remains unclear how the public-at-large, businesses and municipal/institutional waste generators are responding to the different programs.

Over time, as the industry continues to gain experience through implementation of the various programs, availability of quantitative data to help measure effectiveness of outreach and collection programs should become more meaningful.

B. MSP III Development Process

The following discussion summarizes the MSP III development process and reviews stakeholder input from communities in the Covanta service area including recycling coordinators, use of outside consulting help, and research/modeling that was done.

As noted above, Covanta and other municipal waste combustors do not have extensive experience in changing people's behaviors to encourage participation in MSP's. Therefore, Covanta and a group of MWC vendors (collectively, "the MSP group") continue to utilize its trade organization, the Integrated Waste Services Association (IWSA) to assist in the development of the public education and information campaign.

The IWSA is a national waste management trade association that includes Covanta, American-Refuel and Wheelabrator, among others. The public education effort as described is conditioned on all members of the MSP group providing adequate funding.

The cost figures provided herein represent only Covanta's share of the public education effort based on a sharing formula agreed to by the MSP group.

MADEP should be aware that if funding falls below the level anticipated because another MSP group member does not agree to fund at a certain level, then all the public education efforts might not be completed as planned.

1. Coordination with MADEP

Starting with receipt of the MADEP Guidance in January 2000 and continuing for over four years, Covanta has participated in a series of informational and policy meetings with MADEP staff and management.

The MSP group, IWSA and MADEP have also met a number of times, both at MADEP's Boston offices and via conference calls. The MSP group has also met over the past two years independent of MADEP to evaluate how to coordinate programs and minimize redundancy, to facilitate access to mercury diversion programs and maximize commercial, institutional and public participation in programs. The MSP group will continue to meet and discuss how to best maximize participations in the programs.

MADEP has continued to provided Covanta and the MSP group with various informational documents related to mercury recycling, universal waste and mercury separation programs including lists of MADEP universal waste shed grants, contacts for local/regional environmental organizations and waste grants.

2. Coordination with Recycling Coordinators and Community Stakeholders

During the planning and development of the initial MSP (MSP I), an effort was made to learn from the experience of others directly involved with current material separation efforts in Covanta's contract communities. Among others, Covanta contacted the Massachusetts Recycling Initiative (MRIP) Coordinators for Districts 2 and 3. Those MRIP coordinators have oversight for the recycling activities in all municipalities in the northeast section of Massachusetts including the towns under contract with Covanta for waste disposal. Covanta also met with Mr. Steve Clifford, the Recycling Coordinator for the City of Haverhill, Covanta's host community.

Covanta also developed a survey and conducted detailed telephone interviews with others involved with existing source separation/mercury diversion programs, including Ms. Lynn Rubenstein (Northeast Recycling Council) and Mr. Pat Scanlon (Scanlon Associates). Ms Rubenstein and Mr. Scanlon helped American-Refuel and Wheelabrator, respectively, draft their initial MSP's for mercury diversion in Massachusetts. The background information they provided helped shape Covanta's survey form.

Covanta has maintained this dialogue with the recycling coordinators of the Covanta contract communities, the MRIP coordinators and the MSP group during development and implementation of the subsequent MSP's (MSP II and MSP III). This continuing communication fosters information sharing between the municipalities and helps to

guarantee that the current (MSP III) implementation will continue to proceed in a coordinated, non-duplicative way.

3. Environmental/Citizen/Health Community Outreach

To aid in the development of the MSP III, Covanta sponsored three public meetings to solicit input and comments from municipal officials, environmental groups and local citizens of the Covanta contract municipalities. The meetings were held at centrally located facilities in Chelmsford (Radisson Hotel and Suites) and Wakefield (Best Western Lord Wakefield Hotel) during the afternoon and Haverhill (Comfort Suites) during the evening. Covanta believed that utilizing different locations and times would give more people the opportunity to attend and participate in development of the MSP III. While attendance was relatively low, the comments and discussions were useful in preparing the MSP III.

Some suggestions received from the meetings - such as having the municipalities enact mandatory mercury recycling/diversion ordinances - have recognizable merit. In some cases, they have been successfully implemented (thermometer bans in Haverhill and Newburyport as well as a mandatory fluorescent light recycling/management ordinance in Haverhill). Covanta will continue to explore ways to aid the municipalities in these efforts.

Other suggestions that we will look to incorporate during the implementation of Covanta's MSP III include:

- Work with Covanta municipal electric utilities – Littleton, Groton, etc. to help recycle their mercury containing products
- Conduct additional outreach/educational efforts focusing on Fish and Game, Rod and Gun clubs etc., facility maintenance associations/groups and tanning salons
- Focus outreach to the marina's and boat owners to help capture mercury switches as they are replaced
- Utilize grants as an incentive to schools to provide mercury waste recycling/management information as part of their curriculum.
- Additional outreach/educational efforts with the waste haulers
- The use of banners, sign-boards and other portable advertising materials to publicize mercury product recycling at municipal festivals, fairs, etc. or other municipal events.

4. Market Survey/Analysis by Onyx Special Services Inc. (Onyx)

As part of the initial planning process, Covanta hired Onyx Special Services, Inc, (formerly SSSI, successor to Global Recycling), of Stoughton, Massachusetts, to survey businesses and institutions in the sixteen communities contracted to bring waste to its Haverhill facility, to research the most likely sources of improperly managed mercury containing lamps and other mercury containing items. Using the Internet as a primary research tool, Onyx developed a list of some 2,457 businesses, hospitals, schools and municipal contacts in the target area. While it was recognized that the general public

could well bring in appreciable quantities of mercury through collection programs, a general public outreach was not included in Onyx's market survey/analysis.

This list will continue to be used by Covanta as part of a direct outreach effort for mercury diversion program implementation.

Additionally, to target improper thermostat management, Covanta has utilized a direct mail company (Am-Pro) and purchased mailing lists for all the contract municipalities (zip code) broken out by Standard Industrial Code (SIC) for all businesses involved in heating and air conditioning work – plumbers, HVAC technicians, electricians, fuel oil companies, etc. Covanta targeted these businesses through a direct mail campaign that promoted thermostat recycling and will continue to utilize the list for follow-up and additional solicitation.

C. Target Sectors

Based on the results of Covanta's research and the Onyx report, it appeared that hospitals, schools, and municipalities were the most responsive to mercury diversion programs and they will continue to be a major focus during the MSP III. As mentioned earlier, trades people (plumbers, electricians, etc.) will continue to be targeted in ongoing efforts to promote thermostat recycling. Beyond those targeted sectors, marinas and schools within the Covanta contract municipalities will also see outreach/education efforts focusing on proper management of mercury containing products. The general public will continue to be invited to participate in diversion programs such as thermometer exchanges, HHW collections and other events, as appropriate. As time and budget allows, outreach efforts may also continue in the dental and healthcare fields.

- 1) The Mercury Product Drop-off Collection Events Program will continue targeting residents and small businesses.
- 2) Work with trades people, utility companies, wholesalers and retailers to promote a mercury thermostat recycling program.
- 3) Work with municipal water and sewer departments to determine whether they still have mercury flow meters in use or in storage so that they can take advantage of our program.
- 4) Work with marinas in the Covanta contract municipalities to help recycle end-of-life mercury float switches etc. as they are removed from boats.
- 5) Continue to support municipal recycling efforts with “Universal Waste Shed” grants, mercury fever thermometer exchanges and financial support for HHW events.
- 6) Work with the Covanta municipal electric utilities to help recycle their mercury containing products and to enlist their aid in promoting mercury product recycling to their customers.

- 7) Work with schools in the Covanta contract municipalities to implement a school mercury clean-out program that is designed to replace, remove and recycle mercury and mercury containing devices

In each of these programs, specific activities, designed to achieve the MSP III's overall objectives, are identified and supplemented with timelines and budget estimates. Some of these activities will continue to overlap with each other although the targeted audiences for each are different.

As these activities continue to be implemented, we will assess the effectiveness of each with the intention of modifying, in conjunction with the MA DEP, various elements of the outreach initiative, as needed, to make them more effective.

D. Target Areas

Covanta began the implementation of a focused mercury fluorescent light diversion effort in the four target communities of Haverhill, Lawrence, Danvers, and Chelmsford. It was anticipated that all of the remaining contract municipalities that wished to participate would be incorporated into the program by June 2004.

Additional contracts were recently signed with the municipalities of Groton, Littleton, Middleton and Wakefield. However, outreach/education efforts were not able to be implemented during this time period. Additional outreach and education will be conducted during 2004 with collections scheduled to begin in these four additional municipalities in the fall of 2004.

The four communities targeted in the original MSP will continue to receive ongoing outreach/educational efforts as part of the MSP III implementation efforts.

The remaining contract communities in the Covanta service area that wish to participate will be incorporated into the fluorescent light recycling program over the next 2 ½ years. It is anticipated that by the end of the 2 ½ year term of the MSP III that all of the Covanta contract municipalities that wish to participate in the collection program will have had the opportunity to do so.

Participation in the fluorescent light collection program will continue to be voluntary in all cases. It is anticipated that municipalities will be supportive of the MSP effort and provide necessary in-kind program support such as access to its recycling/public works/Board of Health staff resources and allow appropriate access to its operating facilities (schools, buildings, etc.). If any of the Covanta contract municipalities do not wish to participate, the program resources will be utilized elsewhere.

The other program elements, (thermometer exchanges, thermostat program, marina switch program, etc.), as in the past and where applicable, will be conducted in all of the Covanta contract municipalities.

III. Proposed MSP III Activities 07/01/04 – 12/31/06

A. IWSA Outreach\Education

1. Activity Description:

The MSP group will continue using the services of the Integrated Waste Services Association (IWSA), its industry group, to achieve economies of scale by collectively developing appropriate educational materials and conducting an effective outreach program to the affected public (businesses, municipalities, households, etc.). See Attachment 1 for details of this component.

2. Activity Measurement\Evaluation: This activity will be measured and evaluated by documenting the outreach activities that are completed during the year. A summary of this information will then be provided in the MSP annual report.

3. Activity Budget:

For this IWSA component, Covanta has budgeted \$47,200\year for a total of \$118,000 for the 2 ½ year period. See details of these costs in Attachment 1.

B. Facility-Level Outreach\Education

1. Activity Description:

All plan activities will be conducted under the guidance of the Covanta MSP program manager. In addition, Covanta is budgeting for consultant support (i.e., Complete Recycling Solutions, WasteCap, etc.) to help conduct the many outreach/education activities detailed in the MSP III. For example, consultant support will be utilized in contacting businesses and promoting their participation in Covanta's thermostat recovery, marina outreach and fluorescent light recycling programs. Some of the facility level outreach activities will include:

- a. Continue to review and analyze the information gathered through Covanta's research on waste generators, as well as mailing lists/surveys etc., to determine the number of small businesses in these communities and identifying their names, addresses and facility contacts, where possible.
- b. Continue to research and examine existing municipal hazardous waste/mercury collection programs.
- c. Develop initiatives to incorporate small businesses into the activities.
- d. Coordinate with IWSA's contractor (website) and/or a local advertiser to publicize program activities.
- e. Work with municipal officials to incorporate Covanta mercury recycling activities information into municipalities' advertisements for their municipal household hazardous waste collection programs, existing

municipal recycling brochures and mailings that are sent to residents from the municipal recycling, water or electric departments.

- f. Continue attempts to communicate with the business community by working with the local Chambers, Rotaries, and other business associations and attempting to hold ten (10) informational meetings per year in an ongoing effort to maximize communication about the program to the business community.
- g. Continue extending invitations to small businesses to attend the informational sessions being conducted in each community. These sessions are being organized for large and small businesses to explain the hazards of improper mercury management, legal requirements, the Covanta program and the various ways to participate. Covanta plans on conducting ten (10) informational sessions per year.
- h. Continue to send press releases, detailing event successes, to newspapers and other media as program feedback to the residents and the business community.
- i. Attempt to hold ten (10) presentations to Fish and Game Associations, Rod and Gun Clubs, etc. These presentations will focus on improper management of mercury containing products, problems associated with mercury in the environment and how Covanta's program can help solve the problem.
- j. Continue contact and communication efforts with community/public sector leaders and environmental/activist groups, which have an interest in, or are already engaged in, mercury diversion programs. This will help to guarantee coordination, lack of duplication, and help to build local support for the Covanta program.
- k. Continue contact with mayors, state representatives, congressmen, educators, and other opinion leaders to inform them about Covanta's program and gain their support for it.
- l. As time allows and budget allows, renew outreach efforts in the dental and healthcare fields.

2. Activity Measurement\Evaluation:

This activity will be measured and evaluated by documenting the outreach activities that are completed during the year. Where possible, numbers of attendees, participants, etc will be documented. A summary of this information will then be provided in the MSP annual report.

3. Activity Budget:

For the 2 ½ year period, Covanta has budgeted \$213,000 for the Covanta MSP program manager, \$12,000 for special outreach/collection advertisements and \$55,000 for the additional Consultant Support.

C. Mercury Product Drop Off Collection Events

1. Activity Description

This activity will continue to build on existing municipal drop-off collection systems in the Covanta communities. Covanta's goal is to have up to three mercury product drop-off events per year, within each of the Covanta contract communities that wish to participate.

These events target the diversion of mercury containing products from residents and small businesses. Covanta will continue to work within the communities of Haverhill, Danvers and Chelmsford where collections have previously been held.

Additionally, Covanta now has signed contracts from Wakefield, Middleton, Littleton and Groton that provide the authority to conduct mercury product collection events within these municipalities. Once outreach/education efforts are completed (as discussed earlier), collections will begin in these communities.

During the MSP III, Covanta will also endeavor to provide this assistance to any remaining contract communities that wish to participate. Where necessary and possible, contracts will be finalized to authorize collections within the communities.

It is hoped that during MSP III, Covanta will have been successful in introducing this program and holding collection events in all of the contract communities that wish to participate.

2. Activity Outreach/Education

The IWSA campaign, as discussed above, will be an important component of the outreach campaign. The IWSA campaign consists of advertisements in local newspapers, public service announcements, radio spot advertisements and Web-based tools.

Complemented by this broad IWSA campaign, additional outreach and educational efforts will be conducted by the Covanta MSP program manager and consultant support. The following initiatives will continue to be conducted specifically for this activity:

- Continue to review and analyze the information gathered through Covanta's research on waste generators, as well as mailing lists/surveys etc., to determine the number of small businesses in these communities and identifying their names, addresses and facility contacts, where possible.
- Continue to research and examine existing municipal hazardous waste/mercury collection programs.

- Develop initiatives to incorporate small businesses into the programs.
- With the assistance of the municipalities and the recycling contractor, designate locations, dates, and staff for these events.
- Determine the availability of municipal personnel and/or environmental group volunteers to assist with these events, if necessary.
- Define how much material can be accepted and set a limit for Covanta's financial contribution to the event.
- Establish a phone line/contact and develop the logistical components of these events.
- Coordinate with IWSA's contractor (website) to publicize this program to residents and small businesses on the IWSA website.
- Coordinate with local media to advertise and/or publicize this program to residents and small businesses.
- Continue to coordinate with municipal officials in efforts to develop official event notices to residents and small businesses.
- Work with municipal officials and offer to incorporate the mercury products recycling program into the city/town recycling brochures and/or to include mercury recycling information with mailings to residents from recycling, water or electric department.
- Continue to publicize the program and collection events by utilizing notices and advertisements that target residents and small businesses in local newspapers.
- Continue to utilize the municipalities' existing system for advertising household hazardous waste collection programs.

3. Activity Measurement\Evaluation

This activity will be measured and evaluated by determining when possible, the number of contacts made, the level of business participation and the amount of wastes diverted, such as the number of bulbs collected, and the equivalent quantity of mercury diverted from the waste stream. A summary of this information will then be provided in the MSP annual report.

4. Activity Budget

For the 2 ½ year MSP III period, Covanta is budgeting \$66,000 for this activity. Costs include: \$20,000 for advertising costs\event outreach, \$25,000 for the

recycling contractor's labor\transportation costs, \$13,000 for mercury recycling cost and \$8,000 for other event costs (spill kits, training etc.)

D. Thermometer Exchanges

1. Activity Description

Covanta has conducted thermometer exchanges in all of the Covanta contract municipalities, including Salem and Seabrook N. H., as well as Newburyport, MA. Covanta proposes to continue to conduct these exchanges during the MSP III timeframe in all these municipalities that wish to continue to participate.

Thermometer swaps/exchanges are an extremely effective tool in helping to educate the general public on mercury issues while helping to remove a potential mercury waste material and health hazard from the home. As in the past, Covanta will conduct the swaps/exchanges in conjunction with the Boards of Health, Recycling Committees or other municipally designated entity. Ideally, dates and/or locations will be chosen that take advantage of other activities occurring in the municipalities that will enhance program exposure and improve participation.

Covanta has purchased digital thermometers and will continue to make them available for distribution in the swaps/exchanges. The supply of thermometers made available to the municipality will be directly proportional to their population. Each municipality will have available a supply of digital thermometers that represents 10% of the households in the community – assuming 2.5 residents per household. In the likely scenario that some communities will not exhaust their supply of digital thermometers, the excess will be made available, if necessary, to communities that have larger turnouts. If necessary, Covanta will utilize funds from the MSP III budget to purchase more digital thermometers.

2. Activity Outreach\Education

Covanta's MSP program manager will maintain contact with the Boards of Health, Recycling Committee or other municipally designated entity, as appropriate, to facilitate thermometer exchanges in the Covanta contract municipalities. The MSP program manager will coordinate delivery of the digital thermometers, pails and spill kits for use during the collection and arrange for pick-up and recycling of the collected material. Covanta will publicize the events utilizing posters, notices and advertisements in local newspapers.

3. Activity Measurement

This activity will be measured and evaluated by determining the amount of thermometers collected and exchanged and the equivalent amount of mercury diverted from the waste stream. A summary of this information will then be provided in the MSP annual report.

4. Activity Costs

Additional money required from MSP III to fund the municipal thermometer swaps/exchanges should be limited to publicizing the events and disposal. The thermometers have been purchased. Advertising cost for 16 communities over a 2 ½ year program is estimated to be \$24,000. Time and travel, as well as mercury recycling cost from the collections are estimated to be \$1000.

E. Municipal Mercury Recycling Reimbursement

1. Description of Activity

In order to assist communities with the costs associated with mercury product recycling, Covanta will continue to reimburse any Covanta contract community for the costs incurred in collection, storage and recycling of residentially and/or municipally generated mercury containing products (fluorescent lights, thermostats, thermometers etc.), collected at one-day HHP events or at permanent facilities (either permanent HHP centers or Universal Waste Sheds) or as previously mentioned.

Further, Covanta will continue to reimburse any contract community the cost of a Universal Waste Shed if they presently do not have a shed but wish to acquire one.

The goals of this activity are:

- a. Increase the public awareness of mercury, health and environmental issues surrounding mercury content products, and the potential impacts of improper disposal.
- b. Increase collection of mercury containing products.
- c. Creation of a sustainable, highly beneficial, low cost program.
- d. Increased participation of communities with limited resources by supporting the residential collection program through subsidized mercury product collections and/or by supplying them with a Universal Waste Shed and reimbursing the cost of recycling the residentially and municipally generated materials.

2. Activity Outreach

Outreach for this activity consists of Covanta's MSP program manager continuing to meet with local municipal officials (DPW, Boards of Health, public utilities, recycling coordinators, etc.) to explain the benefits of our program and soliciting their participation in the numerous activities that we support – Universal Waste Shed Grants, thermometer exchanges, mercury product collections, etc – in addition to the reimbursement offered to municipalities for collecting and recycling mercury containing products generated by municipally or homeowners.

3. Activity Measurement\Evaluation

This activity will be measured and evaluated by documenting equipment\support provided to each municipality and determining the amount of waste collected and the equivalent amount of mercury diverted from the waste stream. A summary of this information will then be provided in the MSP annual report.

4. Activity Budget

For the 2 ½ year MSP III period, Covanta is budgeting \$77,000 for this activity. Costs include: \$65,000 for mercury recycling costs budgeted at 14 towns x \$1850 and \$12,000 for Universal Waste Shed Reimbursements budgeted at 8 sheds x \$1500.

F. Thermostat Collections

1. Activity Description

A significant portion of mercury contained in the municipal waste stream is entering through the improper management/disposal of mercury containing thermostats. While programs are available for the recycling and reclamation of these products, participation by the wholesalers, HVAC trades people and consumers are limited, at best.

Poor recruitment efforts by the Thermostat Recycling Corporation, the initial cost of registering for the program and a lack of educational outreach to the HVAC trades people are among the reasons mentioned for the low participation and limited collection numbers.

Covanta will distribute thermostat collection containers from the Thermostat Recycling Corporation (TRC) to wholesale distributors of thermostats in the Covanta contract municipalities who wish to participate in the TRC program but have not yet signed-up to join. Covanta has, or will obtain, an inventory sufficient to supply all the wholesale distributors of thermostats within the Covanta contract municipalities that wish to participate in the TRC program.

Additionally, as an added incentive to encourage the HVAC and other trades people to return end-of-life thermostats for recycling, Covanta has designed and begun to implement a program that is offering a \$5.00 cash “incentives” to trades people (plumbers, electricians, HVAC technicians, fuel oil dealers, etc.) in the Covanta contract municipalities for each mercury thermostat returned for recycling.

Covanta is also offering to set-up thermostat recycling at retail locations in the Covanta contract municipalities that would like to participate - Ace Hardware (Groton) and Rounds Hardware (Stoneham) have already signed-up.

While there is no financial incentive for the retail businesses that agree to participate, Covanta will supply all materials that are necessary (mercury spill-kits, buckets, flyers, stickers, posters, newspaper advertisements, etc) to

participate at no charge and will cover all costs associated with the collection and recycling of the mercury thermostats. There will also be yearly awards given to participants in recognition of their leadership in product stewardship and their continuing contribution to the environmental health of their communities. Notices and ads in local newspapers will be utilized to publicize locations where the public can be return thermostats for recycling. Additionally, display ads will be placed in local newspapers to publicly recognize the wholesale and retail participants in the program for their leadership and commitment to their community and the environment.

2. Activity Outreach

Covanta will hold informational meetings for the HVAC industry, utilizing, where possible, their trade associations, designed to gain their support and participation in the thermostat recycling program. Covanta will also utilize outside consultants to aid in contacting and recruiting participants for this program.

As part of the MSP III and to complement the commercial thermostat recycling program, Covanta will contact the utility companies operating in our service area to coordinate efforts at digital thermostat promotion and mercury thermostat replacement.

3. Activity Measurement\Evaluation

This activity will be measured and evaluated by documenting the equipment provided, rebate incentives/grants awarded and determining the amount of waste collected and the equivalent amount of mercury diverted from the waste stream. A summary of this information will then be provided in the MSP annual report.

4. Activity Budget

For the 2 ½ year MSP III period, Covanta is budgeting \$38,000 for this activity. Costs include: \$8,500 for TRC collection supplies, \$12,000 for advertising, \$5,000 for mercury recycling costs and \$12,500 for the recycling rebate incentives\grants.

G. Marina Outreach\Mercury Switch Collections

1. Activity Description

Covanta will research the use of mercury switches in the marine industry to gauge the types of mercury switches in use, their locations and the frequency of their scheduled replacement. The Covanta MSP program manager and/or outside consultants will conduct outreach/education efforts that will explain the environmental hazards of improper management of end-of life mercury switches, legal requirements for recycling/disposal and how they can utilize our program to recycle the mercury containing switches. Covanta will utilize existing databases to obtain a list of all marinas, marine service facilities and boat storage facilities located within the Covanta contract municipalities.

The goals of the activity are to:

- a. Increase the public awareness of mercury, health and environmental issues regarding mercury content products, and the potential impacts of improper disposal of mercury containing products.
- b. Increased collection of mercury containing switches and other mercury containing products by trades persons and the public.
- c. Covanta anticipates that during the MSP III the marinas in Danvers, Haverhill, Lawrence and Essex will be contacted as part of the effort to help marinas recycle mercury switches that are removed from boats.
- d. Creation of a sustainable, highly beneficial, low cost program.

2. Activity Outreach\Education

The MSP manager and/or consultant will conduct outreach/education efforts that will explain the environmental hazards of improper management of end-of life mercury switches, legal requirements for recycling/disposal and how they can utilize our program to recycle the mercury containing switches. Initial contact will be by phone and followed-up with on site visits, as needed. Once contacted and the business agrees to participate, the materials necessary to conduct the collection (pail, spill kit etc) will be dropped off at their place of business.

3. Activity Measurement\Evaluation

This activity will be measured and evaluated by documenting the outreach activities conducted and determining the amount of waste collected and the equivalent amount of mercury diverted from the waste stream. A summary of this information will then be provided in the MSP annual report.

4. Activity Budget

For the 2 ½ year MSP III period, Covanta is budgeting \$13,000 for this activity. Costs include Hg collection supplies such as spill kits, buckets, stickers, brochures, and posters as well as collection and disposal costs. Outreach\education costs are included in the Facility level outreach component detailed above.

H. School Mercury Clean Outs

1. Activity Description

Covanta will contract for mercury school cleanouts and attempt to conduct cleanouts at 21 schools during the 2 ½ year MSP III. The clean-out program will include the following: initial contact, school staff meeting, securing participation agreement from administration, mercury inventory, mercury training for staff (if requested), ordering of replacement products, arranging for safe pick up of mercury materials, and follow up, including assessment of effectiveness in terms of total amount of mercury and mercury products collected.

The goals of this activity are:

- a. Remove a potential hazard from schools.
- b. Increase the participating school administration awareness of mercury, health and environmental issues regarding mercury content products, and the potential impacts of improper disposal of mercury containing products

1. Activity Outreach\Education

Outreach for this activity will consist of making initial contact, having school staff meeting, securing participation agreement from administration, conducting mercury inventory, and providing mercury training for staff.

3. Activity Measurement\Evaluation

This activity will be measured and evaluated by documenting the outreach activities conducted and determining the amount of waste collected and the equivalent amount of mercury diverted from the waste stream. A summary of this information will then be provided in the MSP annual report.

4. Activity Budget

Covanta has investigated the average cost associated with mercury school cleanout programs, including labor, removal and recycling of mercury products and purchase of replacement products. On average, Covanta expects to spend \$3000 per school for each cleanout. Covanta anticipates conducting 21 school cleanouts over the 2 ½ year term of the MSP III for a total budget of \$63,000.

I. Covanta Corporate Support\Oversight

For the MSP III, Covanta has budgeted for program oversight. A key task of Covanta's MSP manager is to monitor the effectiveness of the program's activities and to manage the MSP budget, in close coordination with Covanta management. On a routine basis, the MSP manager meets with Covanta management to review results, discuss problems and make changes. In addition, Covanta management is extensively involved with MSP development including plan review\revision, meetings with industry reps and meetings with MA DEP. For the 2 ½ year MSP III, Covanta has budgeted \$25,000 for these costs.

IV. Proposed MSP III Budget 07/01/04-12/31/06

The MSP III covers the 2 ½ year period of July 1, 2004 – December 31, 2006.

In 2003, approximately 563,638 tons of waste was processed at the Covanta Haverhill facility.

The cost of implementing the proposed mercury diversion program will not exceed the \$0.50 per ton value as per the MADEP's Guidance.

Therefore, the budget is proposed at \$281,819/year for a total of \$705,000 for MSP III.

A. IWSA Outreach\Education	\$118,000
B. Facility-Level Outreach\Education	
1. Covanta MSP Coordinator	\$213,000
2. Special Outreach\Advertisements	\$12,000
3. Consultant Outreach Support	\$55,000
C. Drop Off Collection Events	
1. Advertising costs\event outreach	\$20,000
2. Recycling Contractor's labor/transportation	\$25,000
3. Mercury recycling/disposal grants	\$13,000
4. Other event costs (spill kits, training etc.)	\$8,000
D. Thermometer Exchanges	\$25,000
E. Municipal Mercury Recycling Reimbursement	
1. Universal Waste Sheds	\$12,000
2. Municipal Hg recycling expenses	\$65,000
F. Thermostat Collections	\$38,000
G. Marina Outreach\Mercury Switch Collections	\$13,000
H. School Mercury Clean-outs	\$63,000
<u>I. Covanta Corporate Support\Oversight</u>	<u>\$25,000</u>
TOTAL	\$705,000

As the program continues to be implemented, Covanta will assess its effectiveness with the intention of modifying the MSP III, as necessary, in conjunction with the MADEP. While actual expenditures may change somewhat between the categories to make necessary mid-course adjustments that enhance overall program effectiveness, it is anticipated that the relative budget priorities should remain proportionately similar to that presented above.

IV. MSP III Activity Timeline 07/01/04 - 06/30/2006

In general, the time line for the 07/01/04-6/30/06 MSP III is as follows:

3rd Quarter of 2004	Continue ongoing programs in Danvers, Haverhill, Chelmsford, Lawrence, Groton and Littleton; continue planning and conducting thermometer swaps/exchanges; continue work on the Universal Waste Shed procurement program; continue work on the thermostat “rebate” collection program; begin outreach efforts to marinas and boat yards; select contractor and begin implementation of school mercury clean out program; continue outreach and implementation of mercury collection-day program in remaining contract communities.
4th Quarter of 2004	Continue implementation of the mercury collection/recycling programs in the contract communities; schedule collections for spring of 2004; continue to plan and hold thermometer swaps/exchanges in Covanta communities; continue to work with communities interested in procuring Universal Waste Sheds; continue work on the thermostat “rebate” collection program; continue to hold informational meetings in various communities to explain the Covanta program and the goals for the coming year; continue with the implementation of the school mercury clean out program; collect and review data on marina switch recycling project..
1 st Quarter of 2005	Continue working with communities to set-up mercury product collection events; finalize schedule of 2005 collection events; continue work on the thermostat ‘rebate’ collection program; continue with the implementation of the school mercury clean out program; continue outreach efforts to the healthcare and dental facilities, as time and budget allow; continue to hold informational meetings in various communities to explain the Covanta program and the goals for the coming year.
2 nd Quarter of 2005	Continue ongoing program operations and continue to approach and implement collection programs in remaining Covanta contract communities; schedule collection events in additional communities; schedule thermometer exchanges; restart outreach efforts on the mercury switch program to marinas and boat yards; hold informational meetings for the healthcare and dental communities as time and budget allow; continue with the implementation of the

	<p>school mercury clean out program; continue outreach work with wholesalers, retailers and trades-people for the thermostat “rebate” collection program; follow-up with municipalities that have not taken advantage of Universal Waste Shed purchase/reimbursement; review data.</p>
3 rd Quarter of 2005	<p>Continue ongoing program operations and continue to approach and implement collection programs in remaining Covanta contract communities; schedule and hold thermometer exchanges; continue outreach efforts on the mercury switch program to marinas and boat yards; continue to do outreach in the healthcare and dental communities, as time and budget allow; continue with the implementation of the school mercury clean out program; continue outreach work with wholesalers, retailers and trades-people for the thermostat “rebate” collection program; continue to follow-up with any remaining municipalities that have not taken advantage of the Covanta Universal Waste Shed purchase/reimbursement program.</p>
4 th Quarter of 2005	<p>Finalize collection contracts in remaining Covanta contract municipalities that wish to participate; schedule collections for spring 2006; continue outreach work with wholesalers, retailers and trades-people for the thermostat “rebate” collection program; continue with the implementation of the school mercury clean out program; continue to work with the dental community, as time and budget allow; continue to hold informational meetings in various communities to explain the Covanta program and the goals for the coming year; collect and review data on marina switch recycling project; review data.</p>
1 st Quarter of 2006	<p>Continue to work with the dental and healthcare communities, as time and budget allow; continue with the implementation of the school mercury clean out program; continue outreach work with wholesalers, retailers and trades-people for the thermostat “rebate” collection program; continue to work with the municipalities on mercury product collections; hold informational meetings in various communities to explain the Covanta program and the goals for the coming year.</p>
2 nd Quarter of 2006	<p>Continue to work with the dental and healthcare communities, as time and budget allow; continue outreach work with wholesalers, retailers and trades-people for the thermostat “rebate” collection program; continue with the</p>

implementation of the school mercury clean out program; continue to work with the municipalities on mercury product collections; restart outreach efforts on the mercury switch program to marinas and boat yards; hold informational meetings in various communities to explain the Covanta program and the goals for the coming year; meet with MDEP, hold stakeholder meetings and begin process of reviewing data, writing and submitting the next Draft MSP (MSP IV).

3rd Quarter of 2006

Continue ongoing program operations and continue to approach and implement collection programs in remaining Covanta contract communities; schedule and hold thermometer exchanges; continue outreach efforts on the mercury switch program to marinas and boat yards; continue to do outreach in the healthcare and dental communities, as time and budget allow; continue with the implementation of the school mercury clean out program; continue outreach work with wholesalers, retailers and trades-people for the thermostat “rebate” collection program; continue to work with MDEP on revising/finalizing Draft MSP IV; continue to follow-up with any remaining municipalities that have not taken advantage of the Covanta Universal Waste Shed purchase/reimbursement program.

4th Quarter of 2006

Finalize collection contracts in remaining Covanta contract municipalities that wish to participate; schedule collections for spring 2006; continue outreach work with wholesalers, retailers and trades-people for the thermostat “rebate” collection program; continue with the implementation of the school mercury clean out program; continue to work with the dental community, as time and budget allow; continue to hold informational meetings in various communities to explain the Covanta program and the goals for the coming year; collect and review data on marina switch recycling project; review data; finalize MSP IV and receive final approval to begin implementation on January 1, 2007.

L. Measurement and Evaluation

A means of accounting for the materials collected from each diversion program and monies expended for each program will be built into each program implemented. This can include record keeping at each event, tracking of the total amount of material diverted to mercury recycling, number of vehicles, and estimates of the amount of mercury collected, etc.

Beginning in July of 2004, Onyx has agreed, at a yet to be agreed upon additional fee, to furnish actual counts of materials (numbers of thermostats, thermometers, switches, etc) diverted through the Covanta collections programs. This will enable Covanta in future annual reports to use a more standardized and consistent conversion method when calculating the mercury content in the materials diverted. However, there are many companies that are involved in the collection, transportation and recycling of mercury containing products and some may be reluctant to provide this level of detail. Covanta will endeavor to convince other mercury recyclers of the need and value of this information and urge that they also supply this information.

The collection of this data and feedback will allow for program adjustments, fine-tuning and assessment of program effectiveness and will be utilized when preparing the annual reports.

As the program is implemented, Covanta will continuously assess its effectiveness and review the timeline with the intention of adopting modifications, in consultation with the MA DEP, as needed.

ATTACHMENT A

Integrated Waste Services Association Year 2004 - 2006 / Two Year Program July, 2004 through June, 2006 Massachusetts' Mercury Material Separation Plans

Introduction

The following proposal summarizes activities to be completed by the Integrated Waste Services Association for its member facilities in Massachusetts. Each activity listed below will be implemented between 2004 through 2006. Specific timelines are provided for each activity, but times are estimates only.

Similarly target populations are provided with each activity, but given the wider reach of mass media, it is probable that people outside the targeted groups will be affected.

As requested by the Massachusetts Department of Environmental Protection and consistent with the prior year MSP, each activity provided herein describes the activity including its educational value, the targeted population, an estimated timeline for implementation, estimated cost, and an explanation of where the activity will take place (i.e., the specific medium for the message). Each activity described herein does not contain a discussion of the evaluation process, which instead is provided more generally because one evaluation tool (the research study) is used for all activities.

Objectives

IWSA's Education Plan for 2001 produced a media campaign "Keep Mercury from Rising" including newspaper and radio advertisements, posters, and a brochure for use by the facilities. The 2004-2006 MSP will take advantage of the prior year's work by continuing to use targeted advertising to reach communities serviced by waste-to-energy facilities. The objectives for 2004-2006 include the following:

- Continue to raise awareness about mercury-containing products in the home and the proper handling and disposal of these products;
- Provide information and promote local recycling events;
- Continue to build an integrated communications program that leverages opportunities for incremental, free media, and works synergistically with the efforts of individual waste-to-energy facilities.

Tactics

IWSA will continue targeted advertising to reach communities serviced by the facilities, as well as implement marketing of print advertisements and radio live-read script to run as public service announcements. The facilities through their Association also proposes to expand web capabilities to provide additional tools for residents in target communities to participate in recycling of mercury-containing products. IWSA also will reach out to the media to generate media coverage of the public education campaign.

Evaluation Tool

The effectiveness of all activities will be measured by a research survey. The surveys will be completed in the first half of the year shortly after placement of paid media and compared with earlier polls to better define the audience and the effectiveness of the message and media. The polls will be designed to measure positive changes in public attitudes and behaviors, as well as the receptiveness of the message.

Timeline: The surveys are expected to go into the field in May, shortly after completion of publication of print and airing of radio media.

Activity: The survey questionnaire will time out at between six and eight minutes in length, and the study will consist of 400-500 completes, providing a $\pm 4.39\%$ error rate at a 95% confidence level. The survey will be executed via random digit dialing from electronically generated phone lists. A series of screen questions would produce the necessary targeted universe of respondents.

Cost: \$20,000 per year

Details of Activities

1) Advertising

Radio and print advertising will be used. Radio is a targeted medium that provides cost-efficient mass communication and quickly builds frequency of message delivery. Radio added-value programs can provide an opportunity to interact with local communities. Print advertising can be equally effective. Residents look to community newspapers for information on local activities and events. Additionally, these publications are a cost-efficient way to reach the target. Due to allocation of costs between American Ref-Fuel, Covanta Energy and Wheelabrator Technologies, the advertising will be focused on the Boston market, Worcester area and North Andover / Haverhill region.

Timeline: A two-week radio buy in May, 2005 and 2006. Print advertising in the Boston Globe and its supplements to support radio buys.

Activity: Radio: IWSA proposes to implement a two-week radio buy in May of each year. The buy would be scheduled to encourage mercury recycling activities and added-

value opportunities (e.g., sponsorship of special broadcasts, contests, and free spots stations provide) will be considered in development and negotiation of the buy. **Print:** Advertising will include a limited print effort including regional sections of the Boston Globe that reach the target audience. Individual facilities will supplement the IWSA buy with advertising in local newspapers.

Cost: \$ 163,000 per year

2) Public Service Advertisement (PSA) Marketing and Media Outreach

Strong interest in environmental issues among Massachusetts' residents makes the Campaign and the efforts of IWSA a potentially interesting story for journalists. The Mercury Campaign's advertising message and presentation in both print and radio provides a strong opportunity to gain free exposure of the ads on radio stations and in newspapers. This is evidenced by the unsolicited request that was received from a radio station in the Boston area for a live-read version of the radio spot for use as a PSA. IWSA and its' consultant, Porter Novelli, will market the PSA to gain free media.

Timeline: Ongoing

Activity: Conduct outreach among Massachusetts media to generate coverage of the Mercury Recycling Campaign and the positive work of WTE providers including visits to editorial boards and news radio talk shows. Identify local print and radio media and promote the use of the Mercury Campaign advertisements as PSAs.

Cost: \$25,000 per year

3) Web-based Tools

This internet-based community information resource is available at www.keepmercuryfromrising.org. The videos produced in 2003 will be included in the site. A number of sources are searched periodically for important information that may be included in the website. IWSA will continue to update its site as more information becomes available.

Timeline: July, 2004 and ongoing.

Activity: Continue to build upon web-based capabilities for dissemination of information on local recycling events.

Cost: \$5,000 per year

4) Print Materials

A brochure and poster layout has been developed and is being used by IWSA companies and public officials responsible for disseminating information about mercury recycling. IWSA does not propose to alter the materials, but will make such materials available as needed.

Timeline: Ongoing

Activity: Support facilities as needed with additional print materials.

Cost: \$5,000 per year

5) Video

Individual facilities will continue to disseminate the video completed in 2003 to local broadcast and cable outlets, as well as schools, libraries and other public offices.

Timeline: Ongoing

Activity: Dissemination of video as requested by facilities, public groups and the media.

Cost: \$2,000 per year